NOTE: Answers to questions from John Gideon and Ellen Theisen on 1/22/2009 (emails below).

From: Murphy, Patty
Sent: Friday, January 23, 2009 12:36 PM
To: 'Ellen Theisen'; John Gideon
Cc: Miller, Paul; Hamlin, Shane
Subject:Testing

Good morning Ellen and John,

Thank you for your input. I'll try to address your concerns here. Your questions and my answers will be posted on the website.

1) Who are these experts and what is their experience that makes them experts?

Pow, Patrick
Director, Information Technology
University of Washington Tacoma

Also, Debbie Cook provides input for the disability community and has technology expertise. Debbie is blind.

Cook, Debbie
Director
Washington Assistive Technology Alliance

I'll send you a more detailed profile of Patrick's and Debbie's experience when I receive it.

2) GEMS

GEMS will be updated to work with the new Assure and PCS modules.

My first statement -
'They will keep their current accessible voting units (AVUs) and ballot layout and reporting software (GEMS),'

refers to the fact that they would not be purchasing new AVUs or ballot layout/reporting software with this choice of system. Some of the other high speed tabulation choices were with different vendors, and would require new AVUs and ballot layout and reporting software.

3) What version of GEMS is being used in the testing in King Co?

King County has just installed the version of GEMS that is in national testing with Assure and PCS. This version of GEMS is 1.21.1.1.

All software and firmware that is in national testing is now updated at King County for testing.

4) How can King Co and the state make a choice by the county to use a voting system that they don't have to use into an "emergency"?

There has been much discussion on this. Yes, King County successfully used their 16 year old equipment in the 2008 fall elections. However, they literally nursed the system along, and hit a maximum on records the database could handle. They had a contingency plan in place to handle this situation and had to split the database that receives tabulated results into two databases. Their results were delayed and were actually reported incorrectly one evening when the database split and then re-accumulation went awry. They anticipate the data for the 2009 fall elections will produce the same problem. So the choice is between - new equipment on the verge of national certification, or antiquated equipment with contingency procedures to handle the number of records.

In order to prepare for using the new system in the fall elections, multiple entities (King County council, CEOC - Citizens Election Oversight Committee, King County elections, King County Project Review Board and our office) have recommended that King County elections first run the new equipment in a small, spring election. May is the last spring election for this initial run. This is best practice for implementing technology projects.

Ellen added - It is also significant that the system has been in national testing for 1.5 years.

Yes, it's significant that the EAC has not certified any system since it took over jurisdiction of the program on 1/1/2007. We just had a conference call with another vendor that has had their system in national testing since March of 2007. They believe they, and other vendors have spent the last two years helping the EAC define the program and develop what is an acceptable test plan. In other words, the EAC was not ready on 1/1/2007 to take over the certification program. If they had the test matrixes, etc. that they have developed the last two years on 1/1/2007, the test labs would have been able to develop the test plans and probably would have completed the testing in 2007.

Ellen added - While the testing you plan to do at the state level sounds very good, it doesn't take the place of the more comprehensive testing that the law requires.

Agreed. However, much of the testing is complete at the national level.

I will be talking with the EAC and test reviewers on Feb. 11th to find out what has been 'approved'. Although we depend on the entire system to be tested as a whole unit, there has been significant progress made in testing that we can depend on. For instance, I believe the new scanners have been through the rigorous national testing. Also, the source code review is complete. So there are things that we depend on the national process to test that we cannot test that has been completed.

Ellen added - It is important to note that upgrades are normally revised software, not new from scratch. Old problems often remain, and new problems can easily be introduced.

Agreed. But at the same time, the nice thing about an upgrade is that old problems that are known do get fixed. Your point about new problems being introduced is a good point. That is why in addition to the rigorous testing at King County, they will continue to have reconciliation processes to verify the ballots counted match all along the way, and we will add rigorous audits to the data to verify results. In

addition, King County has hired an independent security firm to do a comprehensive risk and security analysis of their elections systems.
See
http://wei.secstate.wa.gov/osos/UserGroups/VotingSystems/Documents/TestPlan/Anitian%20Security%20Work%20Order.pdf

Ellen added - It is also my understanding that the hardware mechanism jams when ballots are fed through at high speed.

The current hardware at King County and at the national testing lab has undergone extensive testing to mitigate the risk of jamming at high speed. You may be referring to a Premier sales presentation in early 2007 that had a problem with jamming, but it appeared to be operator error. King County is going to run a volume test (1.5 million ballots) with folded ballots to make sure this problem does not rear its ugly head.

Each piece of hardware at King County is being put through a series of tests this week for acceptance.

5) Has the public been notified of the testing in King Co and are they being allowed to witness the testing?

Yes and Yes. King County had a press released added to their website on January 16th, stating -

Beginning Tuesday, King County Elections will start the four-step internal acceptance testing process for the upgraded tabulation equipment. This process is open to the public and fulfills Elections' promise in complete and transparent testing of the upgraded tabulation system. Testing will last approximately eight weeks total.

This press release is at King County's News Room website at -

http://www.kingcounty.gov/elections/news.aspx

If you would like to witness some of the testing, please feel free. It would be a good idea to arrange the time with King County so that they are running ballots when you show up to observe. You can work with me to arrange a time, or email Bill Huennekens direct at - Bill.Huennekens@kingcounty.gov

Thank you for your questions and concerns,

Patty Murphy
Voting Systems Support
Office of the Secretary of State
(360) 902-4188
Fax (360) 664-4619
PO Box 40229
520 Union Ave NE
Olympia, WA 98504
pmurphy@secstate.wa.gov

Patty

Thank you for all of this information. I do have a few questions:

1. You mention in the letter to the Review Board that the members of the board include experts in computer sciences or information technology.
Who are these experts and what is their experience that makes them experts?

2. In one paragraph on Pg. 1 you mention that King Co will keep their existing GEMS and then in another you say they will upgrade their GEMS software. Which is it? You cannot upgrade GEMS without changing it.

3. The Assure 1.2 uses GEMS 1.21.1 and that is what is being tested with that system. What version of GEMS is being used in the testing in King Co?

4. How can King Co and the state make a choice by the county to use a voting system that they don't have to use into an "emergency"? They used what I assume was a state certified voting system in the general election in Nov. How does a "choice" to use this upgrade that will not have completed federal testing by the time you want to certify it constitute an "emergency"? What is the "emergency"?

5. Has the public been notified of the testing in King Co and are they being allowed to witness the testing?

Murphy, Patty wrote:
 Good afternoon John and Ellen,

Formal testing is beginning at King County this week for their new central count voting system. Our office has been working closely with King County regarding this testing because the national testing is not complete, and we don't expect completion until late April or early May.

I've created a website to keep all up-to-date on the progress of the testing, etc.

http://wei.secstate.wa.gov/osos/UserGroups/VotingSystems/Pages/default.aspx

See my letter to the Review Board -

http://wei.secstate.wa.gov/osos/UserGroups/VotingSystems/Documents/Articles/Letter%20to%20Review%20Board%201.20.2009.pdf
   to see where we are at right now.

   We will most likely be convening the Review Board in early March.

   Let me know if you have any questions.

   *Patty Murphy
   *Voting Systems Support
   Office of the Secretary of State
   (360) 902-4188
   Fax (360) 664-4619
   PO Box 40229
   520 Union Ave NE
   Olympia, WA 98504
   pmurphy@secstate.wa.gov <mailto:pmurphy@secstate.wa.gov

   From: Huennekens, Bill [mailto:Bill.Huennekens@kingcounty.gov]
   Sent: Wednesday, January 21, 2009 2:51 PM
   To: Monica Tracey; Michael A. Snyder; A.J. Culver; Frank Radford;
Jason Aaron Osgood
   Cc: Huff, Sherril; Hail, Laird; Speaks, Yalonda; Elsom, Travis;
Hunt,
   James; Adam Gaydosh; aldavidson-ems@comcast.net; Murphy, Patty
   Subject: Testing

   All - testing is proceeding slowly, lots of interruptions and it is simply taking some time.

   Schedule for tomorrow:

   Yalonda will resume testing first thing in the morning with the delivery acceptance test scripts we
began yesterday and have continued today.

   I have a meeting in Olympia from 9-12 and will head for the office as soon as it is finished. Anyone is
certainly welcome to observe the process in the morning I would simply ask that you reserve your
questions for me when I return.

   Beginning at 9 am Travis Elsom with our Technical Services staff is going to begin programming and
ballot layout for the mock election in the new version of GEMS. This will also be done in the multi-
purpose rooms.
We are doing this to facilitate getting the ballot print order to Premier as soon as possible.

   If you have questions please let me know - Bill

   Bill Huennekens
   King County Elections

Vote by Mail Transition Manager
206.296.9932

From: Ellen Theisen [mailto:ellen@votersunite.org]
Sent: Thursday, January 22, 2009 6:22 AM
To: Murphy, Patty
Cc: John Gideon
Subject: Re: FW: Testing

Patty,

I appreciate your keeping us informed, too. I am also very concerned about
what John wrote in his fourth question. Since the current system was used
successfully in the high turnout November 2008 election, how is it possible
that "failure to modify the system could materially affect the lawful conduct,
efficiency, accuracy, or security of an upcoming election"? I simply don't see
how certifying this system could constitute an emergency.

It is also significant that the system has been in national testing for
1.5
years. Without exception, an overly long test process indicates severe
problems with a system. Perhaps those problems have been solved, but there is
no way to know until final testing is complete. While the testing you

plan to do at the state level sounds very good, it doesn't take the place of
the more comprehensive testing that the law requires.

With all the problems that have been revealed in previous Diebold systems, it
is a real risk to use an "upgrade" until until national testing is completed
successfully. It is important to note that upgrades are normally revised
software, not new from scratch. Old problems often remain, and new problems
can easily be introduced.

It is also my understanding that the hardware mechanism jams when ballots are
fed through at high speed. Has the hardware been completely rearchitectured to
correct this severe problem?

Thank you,

Ellen Theisen
Co-Director
www.VotersUnite.Org